

Dear Reader,

The Network of Excellence (NoE) Patent-DfMM aims to establish a collaborative team to provide European industry with support in the field of "Design for Micro & Nano Manufacture (DfMM)" to ensure that

problems affecting the manufacturing and reliability of products based on micro & nano technologies (MNT) can be addressed before prototyping and production. For more information: <http://www.patent-dfmm.org/>



Welcome to the new edition of our bi-monthly E-Newsletter, which will keep you updated on project related activities, but also on other DfMM activities that run outside of the project.

We apologise in case you have been added to our database in error: if so, please reply by e-mail with "UNSUBSCRIBE" in the subject field.

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We welcome your comments and contributions.

Happy reading!

Patric Salomon
NoE Patent-DfMM News Editor

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News from the NoE Patent-DfMM

Technology Roadmapping for Packaging - 2nd Workshop, 8 Jun 06, Berlin, Germany

As a result of the first workshop at Heriot-Watt University, a list of Packaging "High-Level Challenges and Related Issues" was produced. During the June meeting, participants will work on 4 of these High-Level Challenges:

- Low-cost Wafer Level Packaging and related testing techniques
- Improvements in CAD/Modelling
- Hermetic/vacuum packaging and low-cost alternatives (near hermetic, plastic packages...)
- Improved reliability

This will enable the selection of packaging investment opportunities, not just for the short term needs of Patent-DfMM, but also for industrialists and academics in the long term. Topics that will be identified as "highly relevant and strategic" for European industry will also be brought into the relevant EC consultation efforts and stakeholder activities such as NEXUS.

The workshop is open for further participants who are willing to share their views on MEMS packaging. For information and registration, please visit our website for more details: www.patent-dfmm.org or contact Fabien Holler directly. On the PATENT website (under events, 16 Feb), you will also find an overview presentation from the last workshop.

Contact: Fabien Holler, Heriot-Watt University, Edinburgh, E-Mail: F.Holler@hw.ac.uk

Presentations from DfMM (DTIP, 25 April) now available at PATENT Website

This workshop on Design for Reliability and Manufacturability in MNT, co-organised by PATENT-DfMM and the NEXUS Methodology Working Groups "Reliability & Test" and "Design Modelling Simulation", was held in conjunction with DTIP 2006 in Stresa, Italy. It attracted 35 participants, mostly from industry. Presentations from MEMS manufacturers, EDA providers, PATENT-DfMM and service providers were well received. The meeting captured important discussions for the future of R&D in the Reliability and Test field that was driven by key MEMS manufacturing industry from both the USA and Europe.

In addition to the workshop, a panel on "Design for Reliability and Test of Microsystems" was organised within DTIP – there was a report on the conclusions reached by the PATENT and NEXUS MWG meeting, the conference was briefed on activities within PATENT and experience and trends within Philips, Alcatel Space and NovaMEMS were reported. The academic community was encouraged to strike a balance between applied research on industrial technologies under development and more speculative and theoretical work on such issues as self-repair and nanoscale degradation.

Presentations are now available for download at www.patent-dfmm.org.

AMICOM/PATENT-DfMM/ACE RF-MEMS Workshop, 28 Jun 06, Orvieto, Italy

This RF-MEMS Workshop on Industry application focuses on Reliability and Packaging. It will be organized by the NoE

AMICOM in collaboration with the Networks of Excellence PATENT (Design for Micro & Nano Manufacture) and ACE (Antenna

Center of Excellence). The workshop will be held in conjunction with the International Conference on RF MEMS and RF

Microsystems MEMSWAVE2006 in Orvieto, Italy. (see: www.memswave2006.org).

Tentative speakers at the workshop are from Alcatel, EADS, Fraunhofer Institute, Heriot-Watt University, IETR, IMEC,

Imperial, IXL, Philips, SonyEricsson, WTC, 3DPlus and 4M2C.

Contact: Anders Rydberg, E-mail: anders.rydberg@signal.uu.se

Event Announcements

IMSTW'06 International Mixed-Signals Testing Workshop, 21 - 23 Jun 06, Edinburgh, UK

The IEEE International Mixed-Signals Testing Workshop (IMSTW) is a forum for discussing all aspects of testing, design-for-test and reliable design of integrated mixed-signals/mixed-technology functions and systems. This includes testing and design verification of monolithic mixed-signal/mixed-technology systems (SoC), heterogeneous systems including system-in-package and printed circuit board implementations of mixed signal functions. The technology spectrum includes analogue, mixed-signals, high-speed IO, RF, MEMS (inc. optics, bio-chemical and microfluidics), and nanotechnology. Test topics such as design-for-test techniques, BIST, fault diagnosis, test generation, on-line and off-line testing, fault modelling, fault simulation and design of fault tolerant systems are all considered. Mixedsignals infrastructure, embedded core testing and application specific topics are also welcome. More information: www.sli-institute.ac.uk/imstw06

COMS2006, Florida, 27-31 Aug 2006

The 11th International Conference on the Commercialization of Micro and Nano Systems (COMS 2006) will be held in St Petersburg, Florida, USA, 27-31 Aug 2006. COMS fosters the commercialization of micro and nanotechnologies and addresses commercialization issues unique to these emerging and disruptive technologies. COMS 2006 will bring together key personnel from all over the world and from every sector of the supply chain, including government representatives, top researchers in the field, educators, relevant publication sources, equipment suppliers, end users, and financial experts. The small tech community gathers at COMS conferences to learn from others, share their own knowledge, discuss and argue points of view - all of which contribute to the advancement of this emerging field. COMS 2006 addresses the issues related to building successful MNT firms, regions and educational programs. An exhibition of equipment suppliers, service providers, product suppliers and consultants will be held in conjunction with COMS 2006.

More information: www.mancef-coms2006.org

CANEUS 2006 Conference on Aerospace Applications, 27 Aug - 1 Sep 06, Toulouse, France

CANEUS 2006 is an international conference devoted to Micro-Nano-technology (MNT) development for aerospace applications. The CANEUS 2006 conference continues to build on the theme developed during previous, successful CANEUS conferences. World-class experts representing cutting-edge MNT research, system development, government and private investment, and aerospace-end users, address the issues of rapidly and cost-effectively transitioning MNT concepts to next generation aerospace applications. CANEUS 2006 culminates in focused workshops aimed at producing viable business plans for the system development of selected MNT concepts.

More information: www.caneus.org/CANEUS06

List of Events

28 May - 1 June 2006

EUSPEN 2006

Baden near Vienna, Austria

<http://baden2006.euspen.com/>

30 May - 1 June 2006

SMT/HYBRID/PACKAGING 2006

Nuernberg, Germany

www.smt-exhibition.com

30 May - 1 June 2006

SENSOR+TEST 2006 Int. Trade Fair for Sensorics, Measuring and Testing Technologies

Nuernberg, Germany

www.sensor-test.de

8 June 2006

Second Technology PACKAGING Roadmapping Workshop

Berlin, Germany

www.patent-dfmm.org

14 - 16 June 2006

ACTUATOR 2006 International Conference on New Actuators

Bremen, Germany

www.actuator.de

21 - 23 June 2006

IMSTW 2006 12th International Mixed-Signals Testing Workshop

Edinburgh, UK

www.sli-institute.ac.uk/imstw06

28 June 2006

AMICOM/PATENT-DfMM/ACE RF-MEMS Workshop

Orvieto, Italy

www.memswave2006.org

29 - 30 June 2006

MEMSWAVE 2006

Orvieto, Italy

www.memswave2006.org

27 August - 1 September 2006

CANEUS 2006

Toulouse, France

www.caneus.org/caneus06

27 - 31 August 2006

COMS 2006

St. Petersburg, FL, USA

www.mancef-coms2006.org

17 - 20 September 2006

Euroensors XX Conference

Göteborg, Sweden

www.euroensors2006.com

Abstract deadlines for conferences

CAS 2006 International Semiconductor Conference, 27 - 29 Sep 06, Sinaia, Romania

Abstract Deadline: 28 May 06

This 29th edition is organized by IMT-Bucharest, under the aegis of the IEEE-Electron Devices Society. Highlights topics are: Nanoscience and nanoengineering; Microoptics and microphotonics; Micromachined devices and circuits for microwave and millimeter wave applications; Micro and nanotechnologies for transducers, interfaces and microsystems; Micro and nanotechnologies for biomedical and environmental applications; Novel materials and intelligent materials; Power devices and microelectronics (including CAD). CAS 2006 program will consist in contributed (structured in oral or poster sessions) and invited papers.

More information: www.imt.ro/cas

MNE 2006 International Conference on Micro- and Nano Engineering

17 - 20 September 2006

Barcelona, Spain

Abstract Deadline: 9 June 2006

www.mne06.org

MOEMS-MEMS 2007 Micro & Nanofabrication

20 - 25 January 2007

San Jose, CA, USA

Abstract Deadline: 10 July 2006

<http://spie.org/conferences/calls/07/pw/mf/>

Next issue: **5 July 2006** (deadline for contributions: **1 July 06**)

Please feel free to send us any DfMM-related news that might be of interest for our readership.

This e-mail newsletter contains public information, only. Please feel free to distribute it to anyone who might be interested in the topics.

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Published on behalf of the project "Design for Micro & Nano Manufacture (Patent-DfMM)", a Network of Excellence funded by the European Commission DG INFSO E5 within the Information Society Technologies (IST) Programme of FP6.

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